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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,951

08/25/2006

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EXAMINER

LARKIN, DANIEL SEAN

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,951	Applicant(s) SCHILLING ET AL.	
	Examiner DANIEL S. LARKIN	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following:

The lead lines as shown in Figure 1 are very faint as to make it difficult to determine which structure is being referred to.

Figure 1 makes reference to "head space"; however Figure 1 appears to show either an empty vial, a vial containing a single homogeneous sample, or a vial containing a single gas sample. The figure fails to distinguish the sample from the head space.

The figure designations "3a" and "3b" should be of the same type font and weight as the other figure designations.

2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing

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date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the Applicants will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

Page 2, line 24: The use of the trademark -- CHROMOSORB -- has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Page 2, line 25: The use of the trademark -- CARBOWAX 20M -- has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Page 2, line 28: The use of the trademarks -- CARBOSIEVE S3 --, -- CARBOPACK --, and -- TENAX -- have been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Page 2, line 36: The conjunction -- and -- should be inserted after the term "invention".

Page 2, line 37: The abbreviation "Figs" should be corrected to read -- Figs. --.

Page 3, line 1: The abbreviation "Fig." should be corrected to read -- Figure --.

Page 3, line 30: The use of the trademarks -- TENAX -- and -- CHROMOSORB -- have been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Page 3, line 31: The use of the trademark -- CARBOPACK -- has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Page 4, line 29: The abbreviation "Fig." should be corrected to read -- Figure --.

Page 5, line 35: The abbreviation "Fig." should be corrected to read -- Figure --.

Page 6, line 13: The abbreviation "Fig." should be corrected to read -- Figure --.
Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the Applicant regards as his invention.

5. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention.

Re claim 1, claim line 2: The term "especially" is deemed to be indefinite because it is unclear if Applicants wish to claim a method of preparing any sample for analysis or only samples "for extraction and enrichment of a volatile component...".

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Applicants previously cited “in particular”; however, Applicants’ new term “especially” is defined as in particular (see second definition, Merriam-Webster’s Online Dictionary).

Re claim 1, claim line 4: The phrase “for example” renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). As currently amended, it is unclear if Applicants’ wish the sample to be analyzed by any analytical device or only a gas chromatograph.

Re claim 2, claim line 2: The phrase “the syringe *body*” lacks antecedent basis. The claim only previously recites a syringe.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by US 6,834,531 (Rust).

Rust discloses a method of operating a gas chromatograph module , comprising the steps of: drawing a sample into a syringe; injecting the contents of the syringe into a chromatograph column containing a stationary phase material having an increase

volume compared to the interior of a syringe needle; and transporting the solutes to a detector, col. 7, lines 39-53. The column containing the stationary material would have a greater volume than the interior of the needle due to the length of the column.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim).

Abdel-Rehim discloses a method and apparatus for sample preparation using solid phase microextraction, comprising the steps of: providing a syringe (2) and hollow needle (8); drawing a sample for extraction and introduction into a gas chromatograph, whereby for extraction of an analyte of interest the sample is flushed through a stationary material (10). As to the limitation of providing a stationary phase material having a volume greater than the interior of the needle, the examiner argues that this feature is well within the purview of one of ordinary skill in the art as means of controlling the amount of sample to be contained within the stationary material,; and furthermore adjusting the size of the stationary material to find the optimum result is also deemed to be obvious to one of ordinary skill in the art. Applicants' have failed to provide any argument of criticality for providing stationary material having a volume

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greater than the interior volume of the needle, which leads the examiner to believe that this feature is simply a choice of design which would be obvious to one of ordinary skill in the art.

With respect to the limitation of claim 2, Abdel-Rehim discloses a syringe (2) and a hollow needle (8) connected to the syringe body/piston (6) wherein, between the needle (8) and the syringe body/piston (6), a chamber (4) is provided which is wider than the cross section of the needle (8) and in which an extraction material (10) is located.

NOTE: A syringe comprises a plurality of syringe bodies, such as a housing, a piston, and a flange/piston stop to name but a few.

10. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin).

Abdel-Rehim discloses a method and apparatus for sample preparation using solid phase microextraction, comprising the steps of: providing a syringe (2) and hollow needle (8); drawing a sample for extraction and introduction into a gas chromatograph, whereby for extraction of an analyte of interest the sample is flushed through a stationary material (10, 11). As to the limitation of providing a stationary phase material having a volume greater than the interior of the needle, the examiner argues that this feature is well within the purview of one of ordinary skill in the art as means of controlling the amount of sample to be contained within the stationary material,; and furthermore adjusting the size of the stationary material to find the optimum result is

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also deemed to be obvious to one of ordinary skill in the art. Applicants' have failed to provide any argument of criticality for providing stationary material having a volume greater than the interior volume of the needle, which leads the examiner to believe that this feature is simply a choice of design which would be obvious to one of ordinary skill in the art.

With respect to the limitation of claim 2, Abdel-Rehim discloses a syringe (2) and a hollow needle (8) connected to the syringe body (2) wherein, the syringe body contains an extraction material (11), which may comprise filter material having a coating. Abdel-Rehim fails to expressly provide a chamber between the needle and the syringe.

Cronin discloses an apparatus utilizing filter means for use with a syringe and needle, whereby the apparatus, comprises a hollow needle (12) connected to a syringe (10), wherein in between the needle (12) and the syringe(10), a chamber (18)/filter (11) is located containing a filter material (23) within. The filter material also appears to have a volume greater than the volume of the hollow needle (12). Modifying the syringe of Abdel-Rehim with the arrangement of Cronin would have been obvious to one of ordinary skill in the art as means of containing the filter material as well as allowing the operator to utilize a "good" amount of stationary material without hampering the movement of the syringe piston; thus allowing for more sample to be collected for greater accuracy.

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11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of JP 10-10104 (Takii et al.).

Abdel-Rehim discloses using a solvent to transport the collected sample to the chromatograph; but, fails to disclose heating means attached to the chamber.

Takii et al. disclose a syringe measuring device used to inject a sample into a gas chromatograph, whereby the device is provided with a syringe (20) having a hollow needle (42) attached. The syringe is placed within a case (12) that acts as a heater for the syringe, see Figures 1, 3, and 5. Providing a heater for the syringe/chamber would have been obvious to one of ordinary skill in the chromatography art as a means of desorbing the sample from the stationary material in order for the gas chromatograph to detect the sample.

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin) as applied to claim 2 above, and further in view of JP 10-10104 (Takii et al.).

Abdel-Rehim discloses using a solvent to transport the collected sample to the chromatograph; but, fails to disclose heating means attached to the chamber. Cronin also fails to disclose use of heating means.

Takii et al. disclose a syringe measuring device used to inject a sample into a gas chromatograph, whereby the device is provided with a syringe (20) having a hollow needle (42) attached. The syringe is placed within a case (12) that acts as a heater for the syringe, see Figures 1, 3, and 5. Providing a heater for the syringe/chamber would

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have been obvious to one of ordinary skill in the chromatography art as a means of desorbing the sample from the stationary/extraction material in order for the gas chromatograph to detect the sample.

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 4,849,179 (Reinhardt et al.).

Abdel-Rehim discloses using a solvent to transport the collected sample to the chromatograph; but, fails to disclose heating means attached to the chamber.

Reinhardt et al. teach the use of a thermal desorption heater (9) in an injector for a gas chromatograph; see abstract and Figure 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a heater as taught by Reinhardt et al. in the invention taught by Abdel-Rehim to desorb the sample, since Reinhardt et al. teach the use of a heater surrounding the extraction material for desorption to assist in transferring trace amounts of absorbed substances into a gas chromatograph; see columns 1-2.

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin) as applied to claim 2 above, and further in view of US 4,849,179 (Reinhardt et al.).

Abdel-Rehim discloses using a solvent to transport the collected sample to the chromatograph; but, fails to disclose heating means attached to the chamber. Cronin also fails to disclose use of heating means.

Reinhardt et al. teach the use of a thermal desorption heater (9) in an injector for a gas chromatograph; see abstract and Figure 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a heater as taught by Reinhardt et al. in the invention taught by Abdel-Rehim in view of Cronin to desorb the sample, since Reinhardt et al. teach the use of a heater surrounding the extraction material for desorption to assist in transferring trace amounts of absorbed substances into a gas chromatograph; see columns 1-2.

Response to Arguments

15. Applicants' arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

The prior art to US 5,919,356 (Hood) disclose a fluid sampling device, comprising a hollow needle (5), a syringe (15), and a chamber (12) containing a filter material (10) disposed between the needle and the syringe, as shown in Figures 2-4.

The prior art to WO 00/75623 (Baker) discloses a sample processing device, comprising an inlet/hollow needle (9), a syringe (5), and a chamber/cartridge (8) containing a solid adsorbent disposed between the inlet/needle and the syringe, as shown in Figure 2 and discussed on page 10, lines 7-12.

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17. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL S. LARKIN whose telephone number is (571)272-2198. The examiner can normally be reached on 8:30 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel S. Larkin/
Primary Examiner, Art Unit 2856
02 February 2009